

Appl. No. 10/815,717

Reply to Office Action of October 24, 2007

REMARKS/ARGUMENTS

The Examiner has rejected claims 1 to 8, 10-17, 25-28, 30-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanforth (US 20020058502) in view of Mauney et al. (US 6484027).

The law on obviousness under 35 U.S.C. 103 was recently addressed in *KSR Int'l v. Teleflex, Inc.*, No. 04-1350, slip op. at 14 (U.S., Apr. 30, 2007). Following this, examination guidelines were released on October 10, 2007 in regards to determining obviousness under 35 U.S.C. 103. According to these guidelines, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.* 383 U.S. 1,148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows:

- (1) Determining the scope and content of the prior art;
- (2) Ascertaining the differences between the claimed invention and the prior art; and
- (3) Resolving the level of ordinary skill in the pertinent art.

The Graham factors, including secondary considerations when present, are the controlling inquiries in any obviousness analysis. Once the findings of fact are articulated, Office personnel must provide an explanation to support an obviousness rejection under 35 U.S.C. 103.

According to KSR, for the Patent Office to properly combine references in support of an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have sought to combine the respective teachings of the applied references.

Applicant's analysis below demonstrates that the Examiner has failed to properly conform to the aforementioned guidelines for a finding of obviousness under 35 U.S.C. 103.

Claim 1

The Examiner concedes that Stanforth does not teach expressly the mobile station being further adapted to participate in wireless P2P (peer-to-peer) communications by communicating

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directly with another mobile station using signals in form similar to the cellular communications signals. The Examiner goes on to argue that Mauney teaches in an analogous art, that the mobile station being further adapted to participate in wireless P2P (peer-to-peer) communications by communicating directly with another mobile station using signals in form similar to the cellular communications signals. (e.g. direct connection; Col. 12; 33-42).

Applicant submits that claim 1 of the present application is patentable over Stanforth and Mauney, as the findings of fact as articulated by the Examiner are inaccurate. In particular, the Examiner has mischaracterized the content of Mauney. Furthermore, the Examiner has not provided a valid explanation to support an obviousness rejection under 35 U.S.C. 103.

Applicant's reasoning is detailed below.

Determining the Scope and Content of the Prior Art

Mauney discloses a wireless handset that can operate "either within a wireless network or outside of a wireless network in a direct handset-to-handset communication mode" (Lines 47-51, Column 6). However, it is respectfully submitted that the reference does not specifically state that the signal format used in direct handset-to-handset communication mode is the same format used when the handset is operating within a wireless network (such as CDMA or OFDM).

When discussing the operation of a conventional cellular telephone in the "Background of the Invention" section, Mauney simply states that "various air-interface technologies may be implemented to facilitate communication between each wireless handset and [a cell site]" (Lines 46-49, Column 2). There is no more specific description of the signal format utilized within a wireless network. Similarly, Mauney is unclear what air-interface technology would be used in direct handset-to-handset communication. There are references to communication between handsets being accomplished using dynamic channel allocation (Line 54, Column 6), full-duplex communication (Line 53, Column 6), registry or control channels (Lines 55-56, Column 36 and Lines 1-2, Column 37), and time-domain multiplexing (Line 42, Column 16). However, none of these terms seem to be indicative of the signal format being used. Therefore, Mauney does not seem to teach a wireless handset that communicates directly with other wireless devices specifically using the same signal format used for communication with a cellular network.

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It may be inferred that Mauncy contemplates direct handset-to-handset operation using signal formats similar to those used by cordless phones to communicate with a base station. For example, at Lines 29-34, Column 17, Mauncy states that “free calls may be set up and handled over a *non-cellular* or unlicensed band [emphasis added]” and gives the 930 MHz unlicensed Industrial, Scientific, and Medical band as an example. Earlier, in the background section, at Lines 30-37, Column 3, Mauncy states that the 902-928 MHz unlicensed Industrial, Scientific, and Medical band is “commonly used for home cordless telephones and is well suited for voice communications.” In addition, one of the objects of the invention is to “provide a wireless handset that is capable of providing *full-duplex* communication [emphasis added] [...] to establish communications with another handset” (Lines 52-55, Column 6), while cordless phones are describes as using full-duplex communication to talk to a base station (Lines 3-7, Column 5). Finally, Mauncy states that “it is possible to implement the wireless handset of the present invention in the form of a handset that is capable of operating in a direct handset-to-handset communications mode and that can function as a cordless phone in co-operation with a cordless phone base station” (Lines 33-38, Column 12). From these limitations, it may be inferred that the Mauncy invention contemplates using the type of signal format that cordless phones use to communicate with a base station.

Furthermore, Mauncy states that a handset, which has the capabilities of both cellular network, and direct handset-to-handset communication, can share circuitry to reduce costs of having separate circuitry for each capability (Lines 5-17, Column 17). As examples, voice processing and 10Kbps data circuitry are specifically mentioned as what may be shared. However, circuitry related to signal formatting, modulation, demodulation, transmission or reception is not listed as an example of circuitry that may be shared. This omission further indicates that Mauncy does not teach a device that uses the same signal format for both cellular network, and peer-to-peer communication.

In light of the above, it is respectfully submitted that Mauncy does not teach a wireless handset that communicates directly with other wireless devices specifically using the same signal format used for communication within a cellular network. Furthermore, it may be inferred that Mauncy teaches a wireless device that uses direct peer-to-peer signal formats similar to those that

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cordless phones use to communicate with a base station.

In view of the foregoing, the findings of fact as articulated by the Examiner are improper.

Explanation to support an obviousness rejection

As noted above, for the Patent Office to properly combine references in support of an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have sought to combine the respective teachings of the applied references. The examination guidelines indicate that "The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

The Examiner has argued that "it would have been obvious to one of ordinary skill in the art at the time of invention to modify Stanforth including the mobile station being further adapted to participate in wireless P2P (peer-to-peer) communications by communicating directly with another mobile station using signals in form similar to the cellular communications signals in order to provide a method and system for a wireless handset that is capable of operating in a direct handset-to-handset communication mode". As discussed above, Mauney does not in fact teach using cellular communications signals to perform wireless P2P communication. As such, the rationale provided by the Examiner to combine the references fails. Combining the two references will not result in a system that allows mobile stations to communicate together directly using cellular communications signals as suggested by the Examiner.

Furthermore, it is still the case that Stanforth teaches away from being combined with another reference in which adhoc communications are performed using cellular communications as suggested by the Examiner. It can be seen that Stanforth teaches away from using a base station. Stanforth describes in paragraph 0038 that "Routers and gateway nodes are also used, as described hereinbelow, for connecting ad-hoc terminals 12 serviced by one gateway to another

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ad-hoc terminal serviced by another gateway, as disclosed in above-mentioned [commonly-owned] application Ser. No. 09/815,157.” (emphasis added) Stanforth describes the commonly-owned application earlier in paragraph 0009 and states that “The ad-hoc, peer-to-peer radio system of this patent does not have, nor require, a base station, as conventional cellular systems, personal communications system (PCC), and the like, require.” (emphasis added) Therefore, Applicant submits that Stanforth teaches that the ad-hoc peer-to-peer radio system, which has routers/gateways, does not have base stations as in conventional cellular systems. This implies that the routers/gateway in Stanforth is not a cellular base station, and that Stanforth explicitly teaches away from using a base station as such.

In view of the foregoing, Applicant submits that claim 1 of the present application is patentable over the combination of Stanforth and Mauney.

Applicant submits that the remaining claims are patentable for similar reasons provided above in respect of independent claim 1.

Furthermore, turning now to claims 2 and 31, the paragraphs identified by the Examiner in the arguments on page 4 of the detailed action simply disclose these TDD as an option for communications. The reference does not teach the detailed use of uplink and downlink PMP bands for PMP communications, and the further use of the PMP uplink band in a TDD manner for both transmitting and receiving for peer-to-peer communications.

Regarding claims 3 to 6, the Examiner refers to paragraphs 38, 41 and 44 as teaching the various features of these claims. With respect, it is not apparent where in these paragraphs the specific matter of these claims is taught. The Examiner is respectfully requested to be more specific in the event he intends to maintain this rejection.

The Examiner is respectfully requested to reconsider and withdraw all of the 35 U.S.C. 103 rejections of the claims.

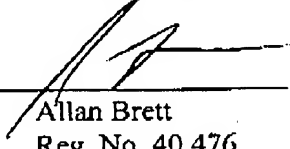
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In view of the foregoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

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